

Headquarters U.S. Air Force

Integrity - Service - Excellence

Federal Agency Perspective to M&V in DSM/UESC



Capt B.J. Cottrell

**Air Force Utility
Litigation Team**

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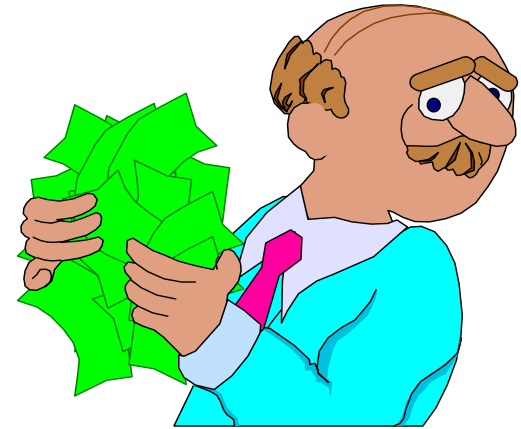
Concerns

- Cost vs. Benefit Analysis
- What is Required – Law and Contract?
 - No statutory requirement
 - No guaranteed savings to enforce – Maybe?
- How will I benefit?



Benefits

- Must have some form of commissioning – first step of M&V
- All contracts have a performance requirement
- Enforcement of warranties
- Enforcement of guaranteed savings
- Peace of mind



When Needed?

- Contracts beyond 10 years.
 - Longer the term, greater the risk.
- Complex projects that require testing and evaluation to ensure proper functioning (i.e., EMCS)
- Where complex O&M is necessary – especially if done by Utility.
- Peace of mind

Lessons Learned

- Cannot enforce performance guarantee without some M&V.
 - If not agreed to, then you must argue over what testing is accurate.
- Audit proofing your UESC program
- Air Force has invested over \$65 million in UESC – protect that investment.



Types of Projects

- Not much M&V in Air Force UESC
- Times are a changin’
- Larger contracts – more complex projects – more responsibility on Utility (i.e., O&M).
- More concern over savings being achieved (since some projects have failed).
- More scrutiny by auditors.

Types of Projects

- Bases like Offutt, Keesler, Tinker, Patrick, etc...many bases are using UESC.
- Boiler/Heat plant decentralization
 - Utility doing O&M
 - Realized excess savings
- Chiller replacement
 - Metering of efficiency
 - Showed proper functioning

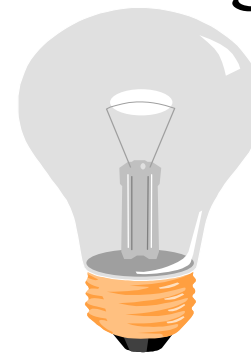


Types of Projects

- EMCS and Chiller replacement
 - Sequencing of large and small chillers
 - No M&V
 - First Year – less than 10% of expected savings

Stipulations

- Do not use stipulated savings!
- Be careful with stipulated variables!
- UESC M&V is to protect you – stipulations do not protect anyone but the contractor.
- Have someone knowledgeable negotiate your M&V plan for you.





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Conclusion

- Protect yourself – include cost effective M&V but do not go overboard.
- Be smart and get help if you need it – M&V does not have to bankrupt a project.
- Realize that M&V may not always be necessary in UESC.
- Remember: proper performance under your contract and possible warranties
- Peace of Mind/Audit Proofing